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SYSTEMATIC REEVALUATION OF THE *PHACELIA PATULIFLORA* (HYDROPHYLLACEAE) COMPLEX

BILLIE L. TURNER
Plant Resources Center
The University of Texas
Austin, TX 78712

ABSTRACT

Moyer and Turner (1994) presented a treatment of *Phacelia patuliflora* in which three, allopatric, infraspecific categories were recognized: var. *patuliflora* of central Texas; var. *teucriifolia* (I.M. Johnst.) Constance of western Texas and north-central Mexico, and var. *austrotexana* J.A. Moyer of southern Texas and closely adjacent Mexico. The complex has been reassessed and it is concluded that all are worthy of specific rank since they all form relatively uniform, discrete, populations and do not intergrade. Appropriate specific names follow: *Phacelia patuliflora* (Engelm. & A. Gray) A. Gray; *Phacelia teucriifolia* I.M. Johnst.; and **Phacelia austrotexana** (J.A. Moyer) B.L. Turner, stat. nov. Distribution maps are provided along with selected statements bearing on their biological status.

KEY WORDS: *Phacelia, P. patuliflora, P. austrotexana* sp. nov., Hydrophyllaceae, Texas, Mexico

Moyer and Turner (1994) presented a treatment of the *Phacelia patuliflora* complex, based upon a Master's thesis of the senior author (J.A. Moyer), which recognized three allopatric, infraspecific taxa: var. *patuliflora*, var. *teucriifolia*, and a newly described var. *austrotexana*. Their treatment was unduly conservative, considering the fact that all of the taxa appeared to be valid biological species deserving of specific rank, as they all form relatively uniform, discrete, populations and do not intergrade. Indeed, as Moyer's major professor, I was amiss in not encouraging her to do so. Regardless, the oversight is corrected here in the account that follows:

Phacelia patuliflora (Engelm. & A. Gray) A. Gray, Proc. Amer. Acad. Arts 10: 321. 1875. *Eutoca patuliflora* Engelm. & A. Gray, Boston J. Nat. Hist. 5: 253. 1845. Fig. 2.

This name is typified by material collected in Austin Co., Texas, by Lindheimer in 1843. It is readily distinguished by its pubescence of glandular trichomes as well as other characters, as described by Moyer and Turner. The taxon has not been found to occur with other members of the complex nor have intergrades been detected.

Phacelia teucriifolia I.M. Johnst., J. Arnold Arbor. 24: 98. 1943. *Phacelia patuliflora* var. *teucriifolia* (I.M. Johnst.) Constance, Contr. Gray Herb. 168: 24. 1949. Fig. 3.

This name is typified by material collected in Musquiz, Coahuila, Mexico, by Marsh in 1936. It is readily recognized by its vestiture of short, eglandular hairs and characters of the calyx, as noted by Moyer and Turner (1994) in their trinomic key to taxa. It is relatively rare in Mexico; other than the type, it is known to me by only one other Mexican collection (Coahuila: "Rcho. Florida," ca. 100 km NW of Muzquiz, *Carranza 1539* [TEX]). The species, however, is relatively common in Texas, as indicated in Fig. 3.

Phacelia austrotexana (J.A. Moyer) B.L. Turner, comb. et stat. nov. Based upon *Phacelia patuliflora* var. *austrotexana* J.A. Moyer, Sida 16: 250. 1994. Fig. 1.

This name is typified by material collected in San Patricio Co., Texas. It is abundantly represented in herbaria by collections from southern Texas and does not, to my knowledge, intergrade with other closely related taxa. Moyer and Turner (1994) observed that *Phacelia austrotexana* (as

var. *austrotexana*) probably is closer to *P. laxa* Small than it is to *P. patuliflora* sensu stricto, which as noted by Constance (1949) appears equally close to *P. strictiflora* (Engelm. & Gray) A. Gray.

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LITERATURE CITED

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Moyer, J.A. and B.L. Turner. 1994. Systematic study of Texas populations of *Phacelia patuliflora* (Hydrophyllaceae). Sida 16: 245–252.

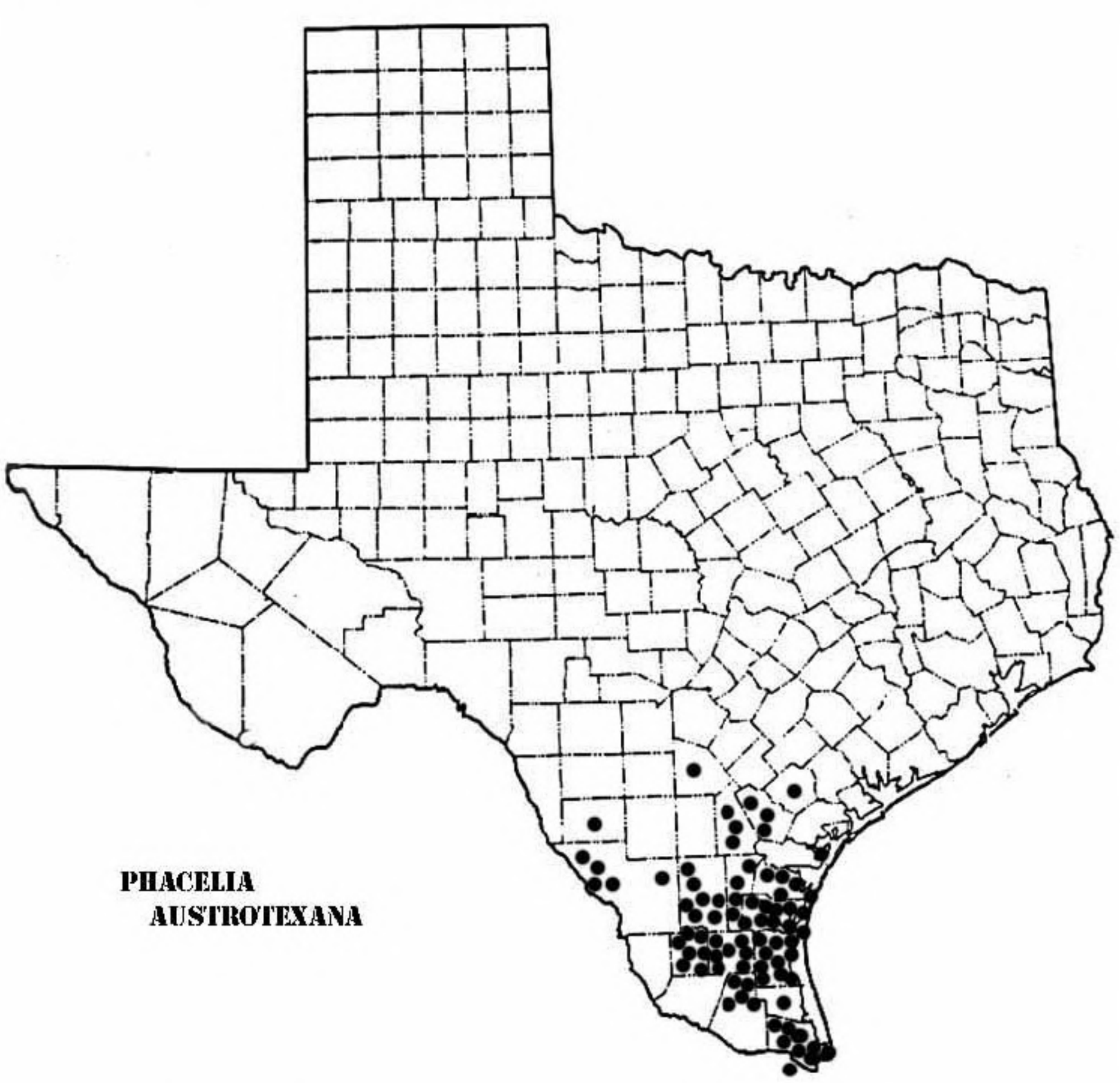

Figure 1. Distribution of *Phacelia austrotexana*.

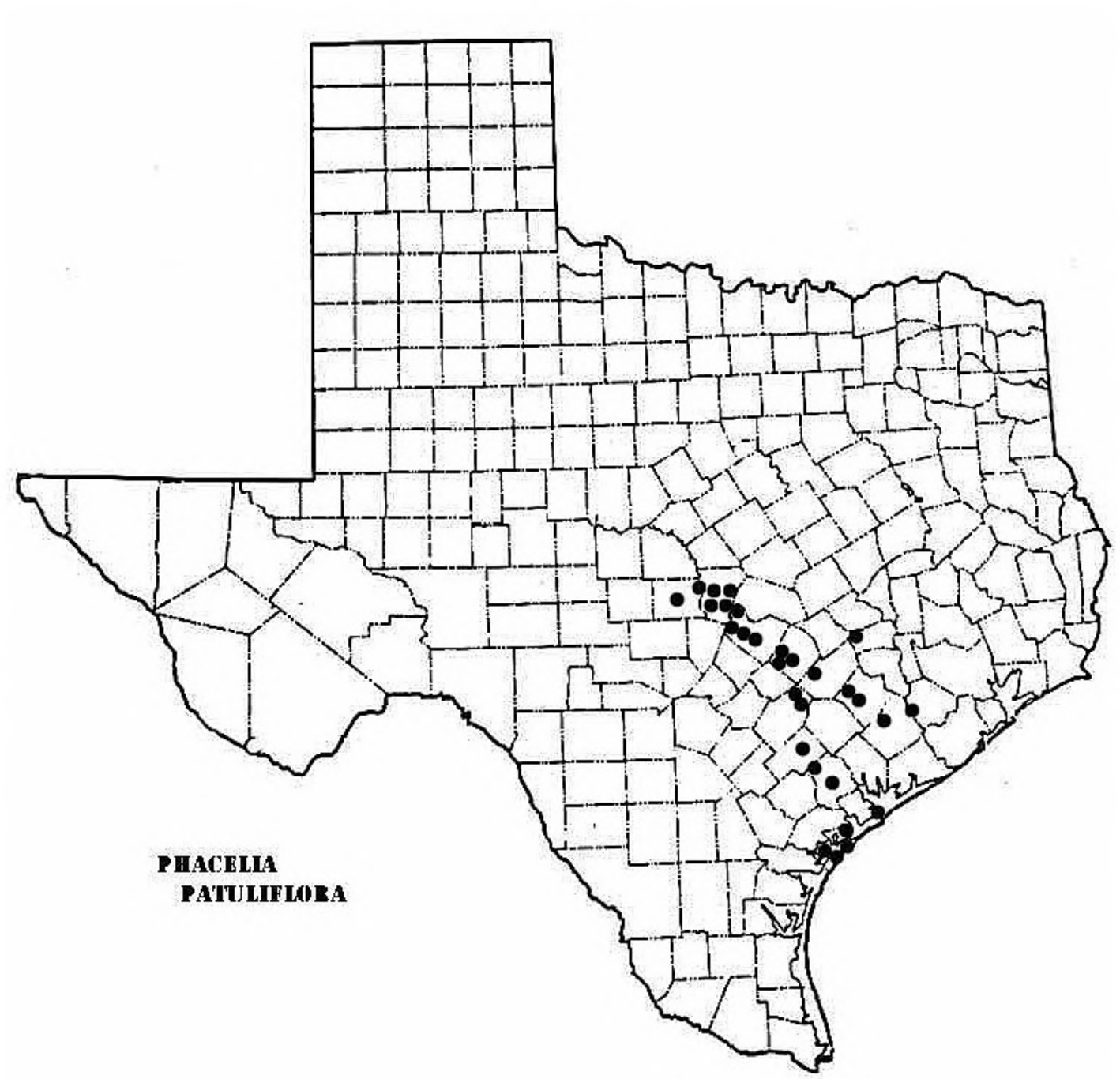

Figure 2. Distribution of *Phacelia patuliflora*.

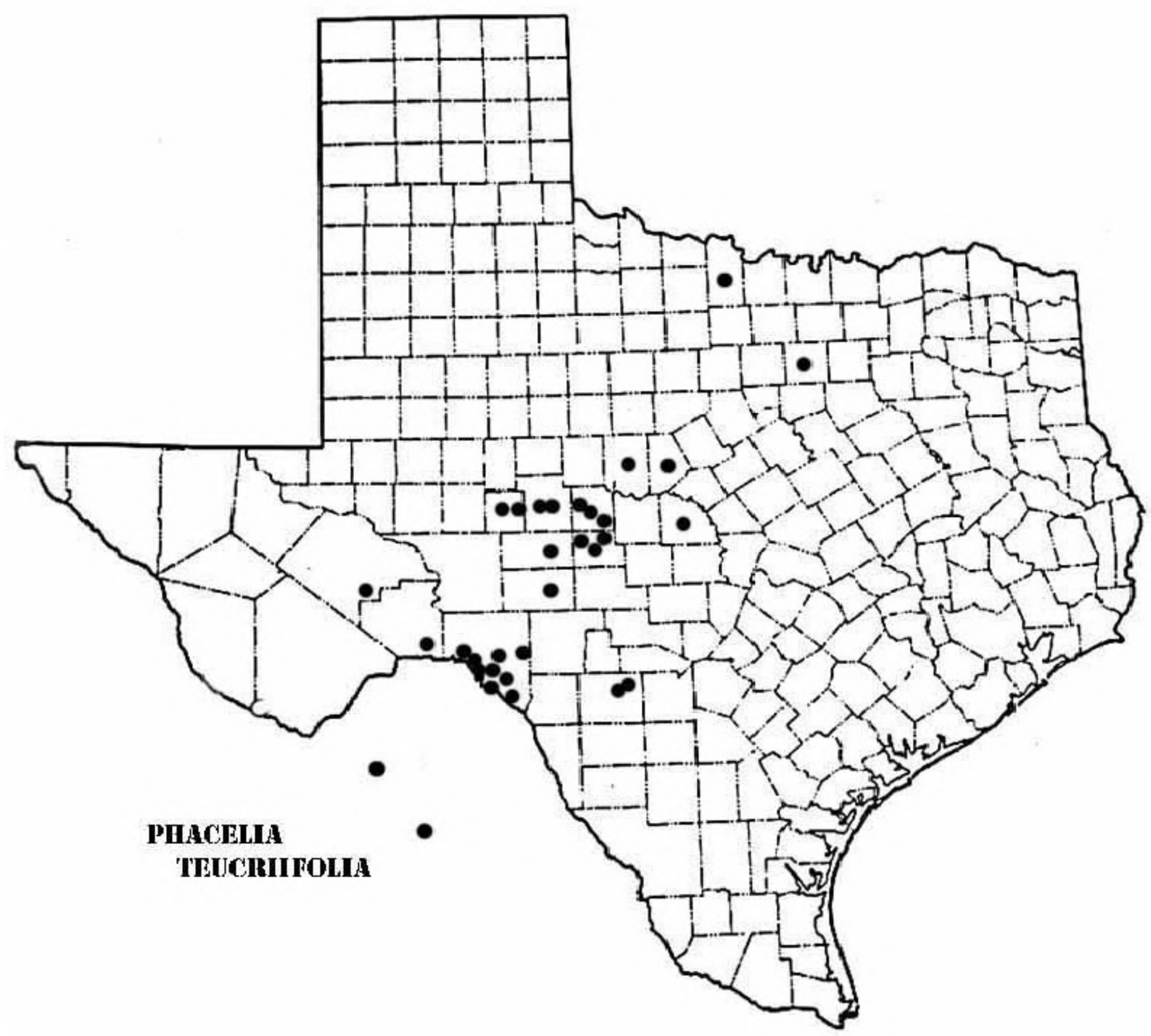

Figure 3. Distribution of *Phacelia teucriifolia*.